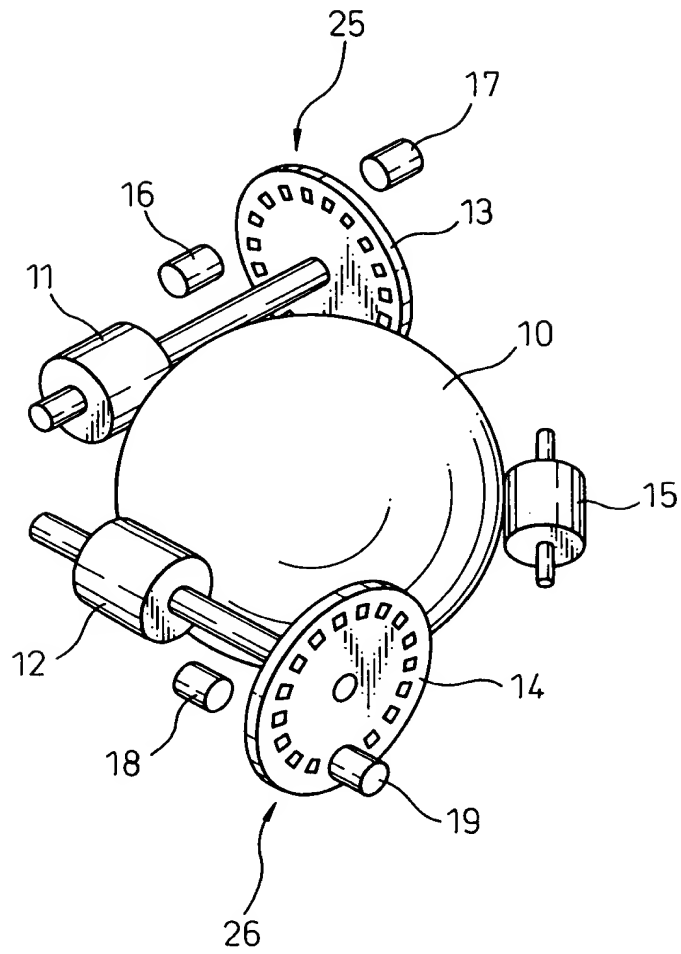


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Fig. 1



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Fig. 2

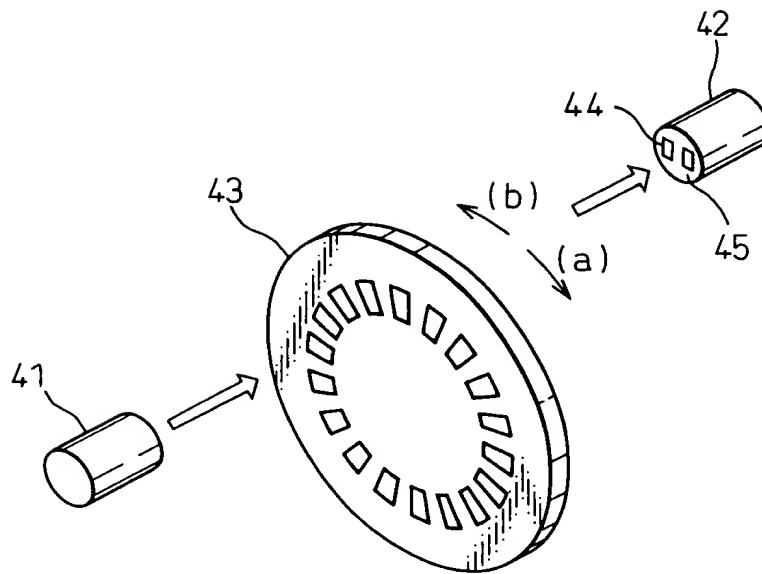


Fig. 3A

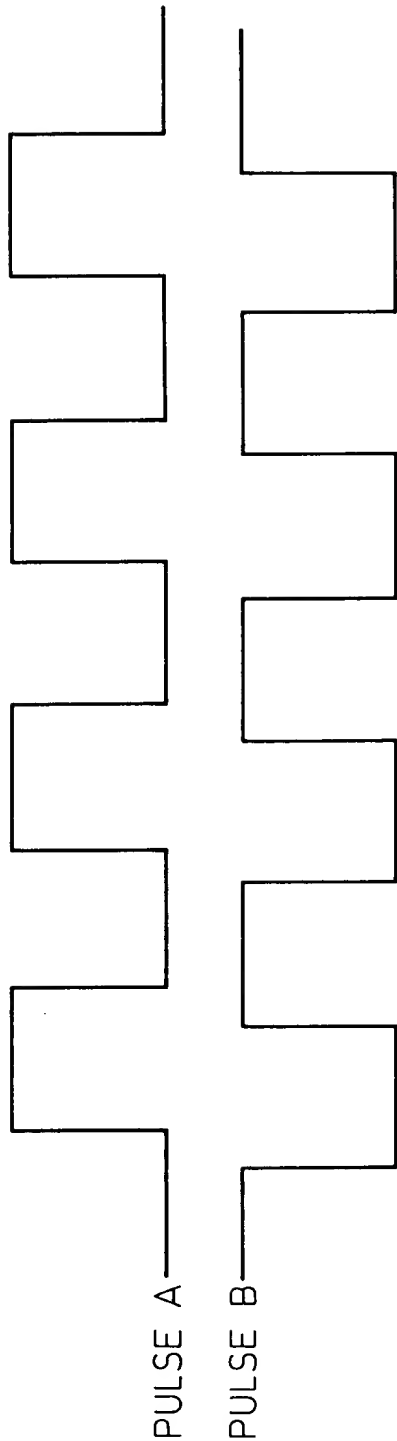


Fig. 3B

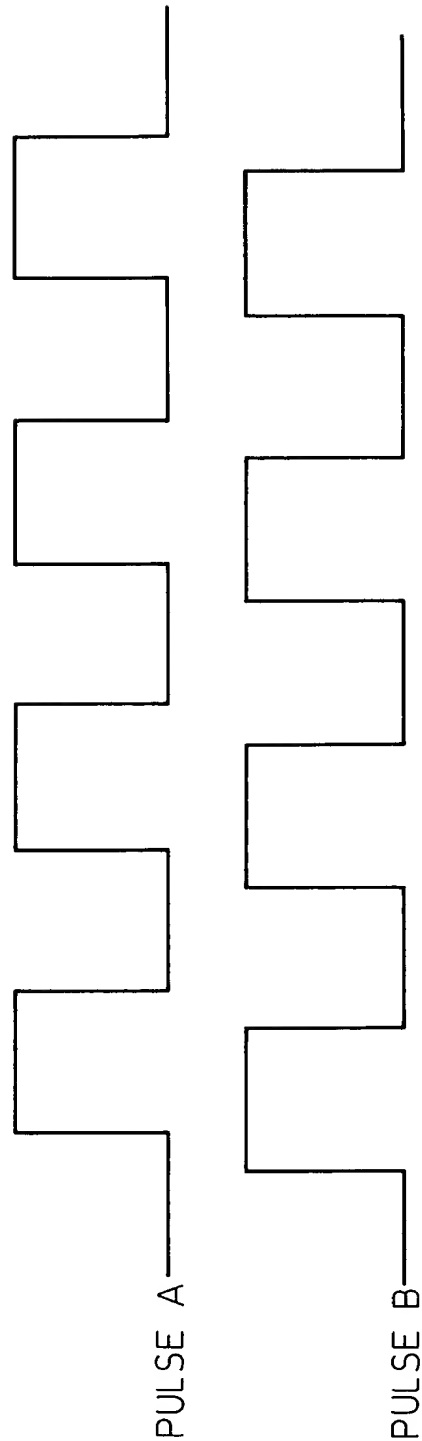


Fig. 4A

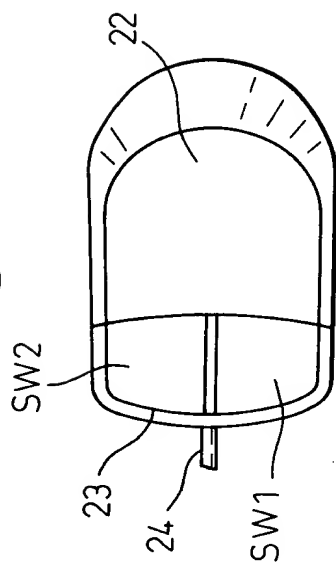


Fig. 4B

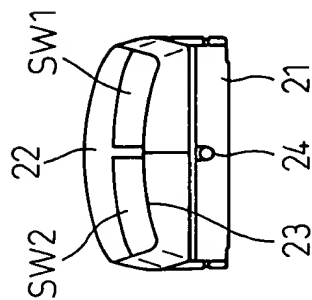


Fig. 4C

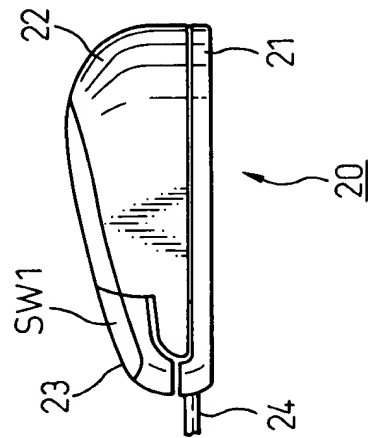


Fig. 4D

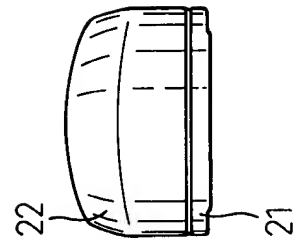


Fig. 5

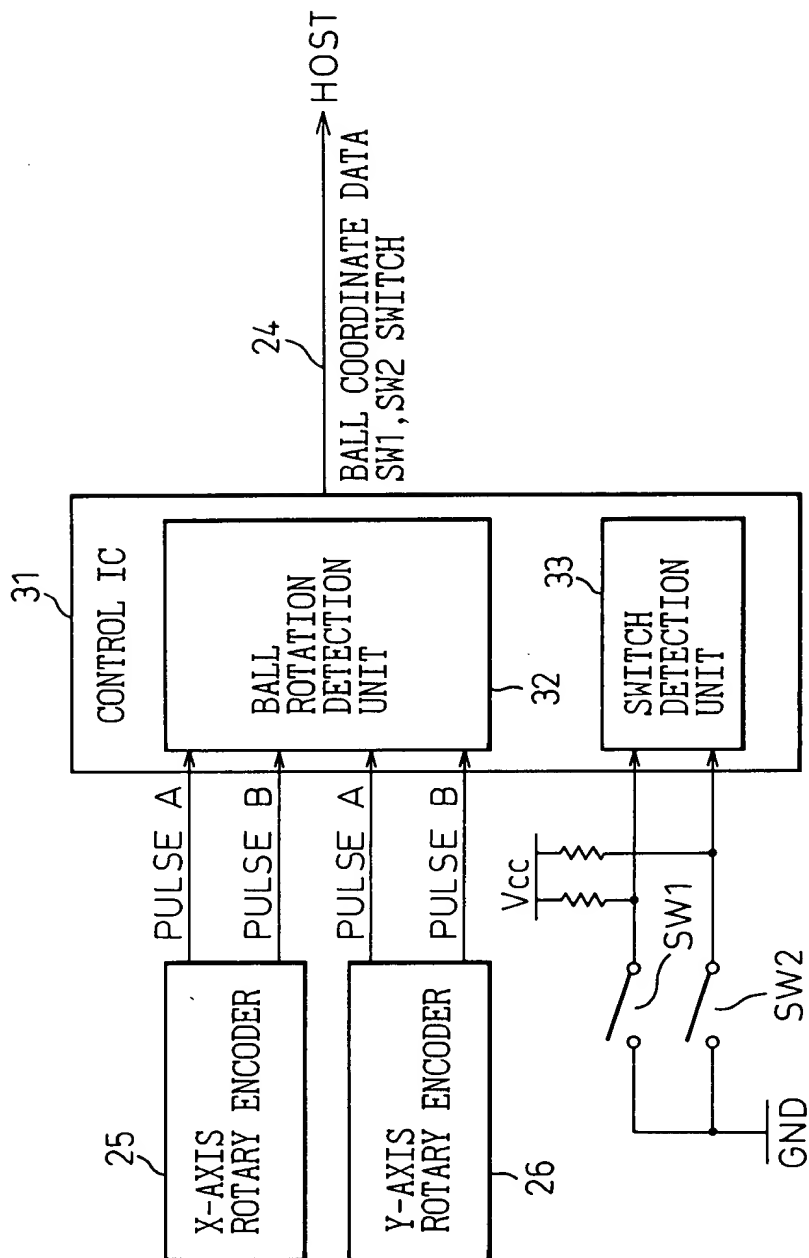


Fig. 6A

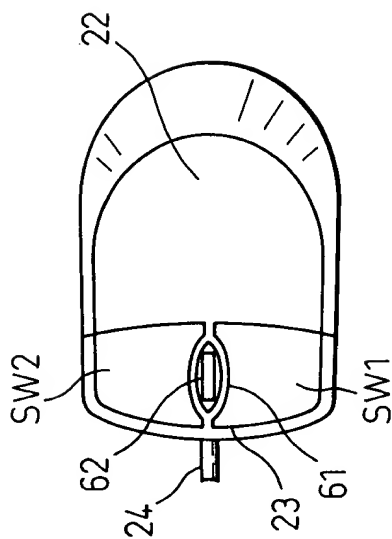


Fig. 6B

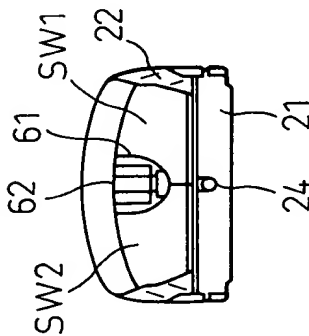


Fig. 6C

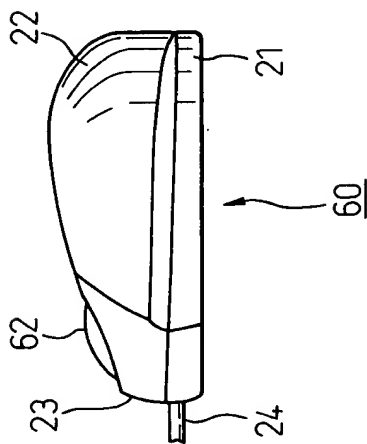


Fig. 6D

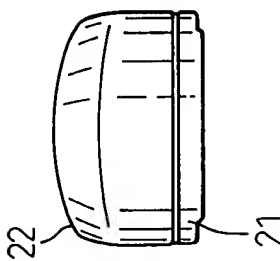


Fig. 7

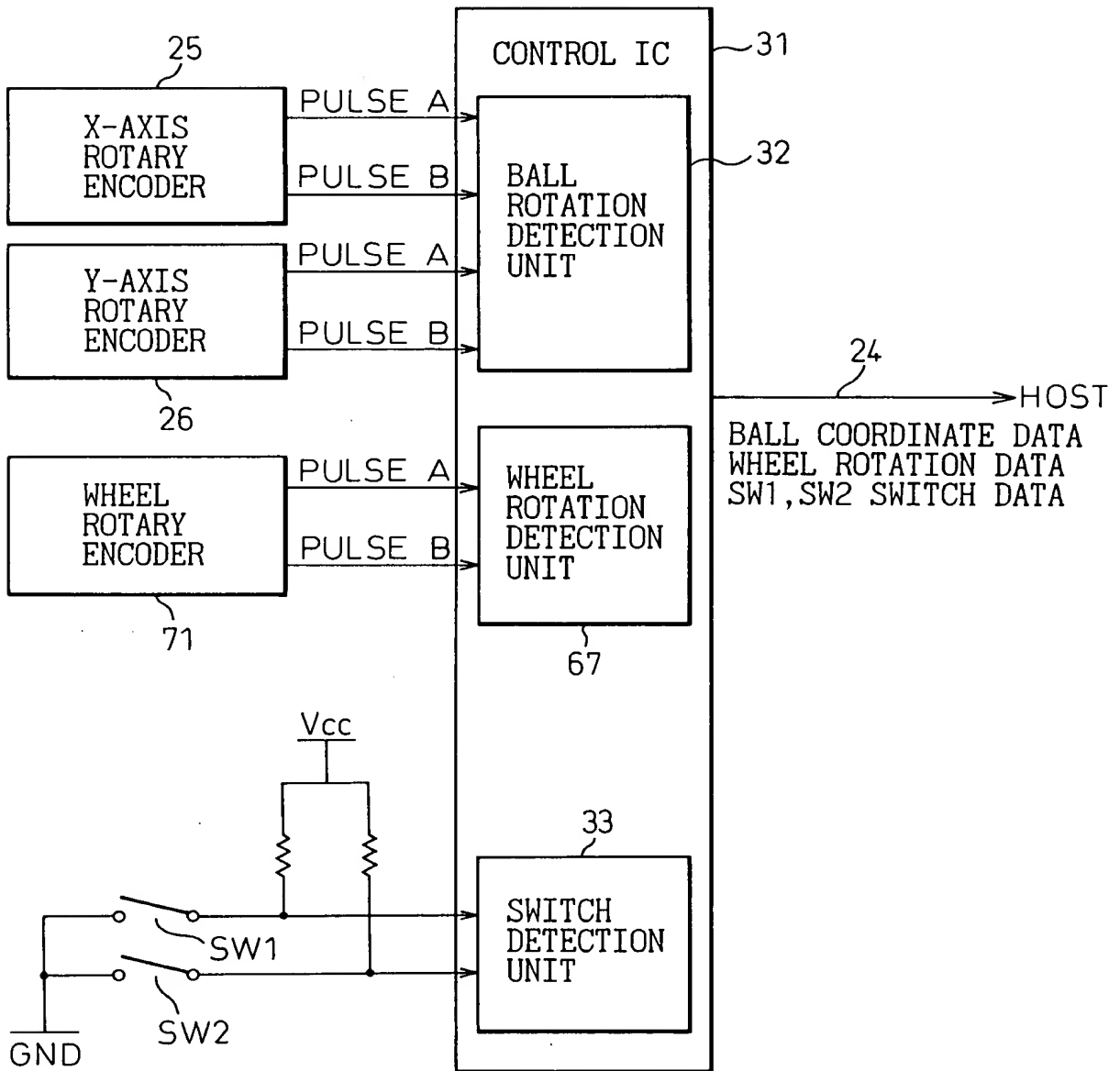


Fig. 8

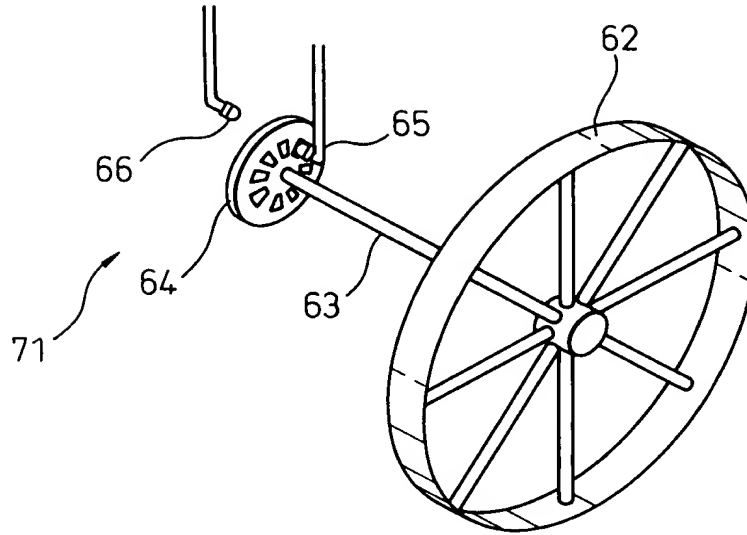


Fig. 9

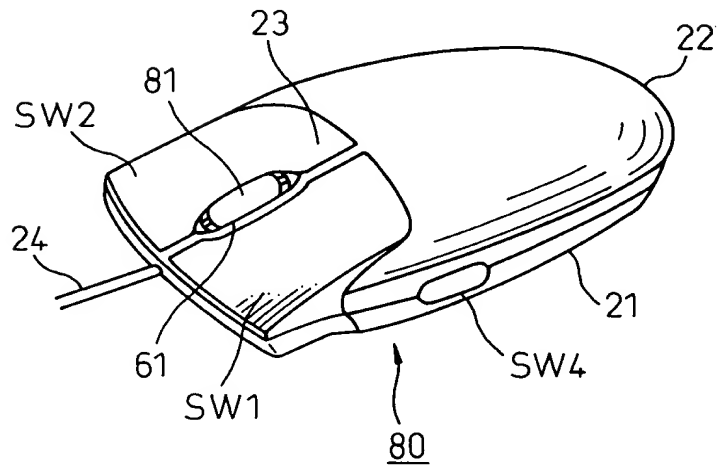




Fig. 10A

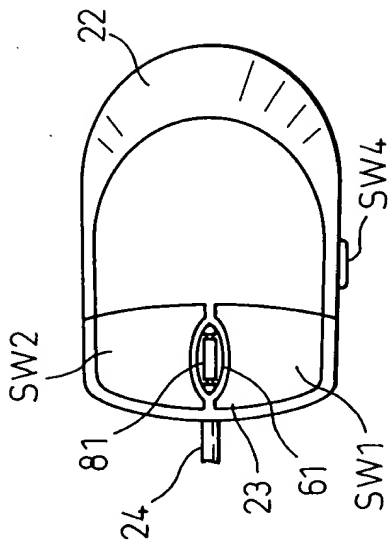


Fig. 10B

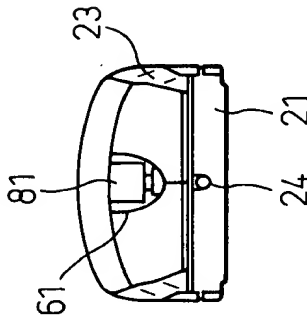


Fig. 10C

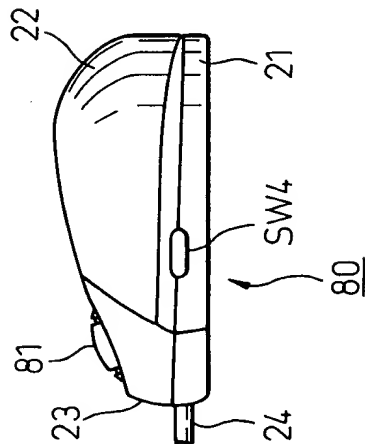


Fig. 10D

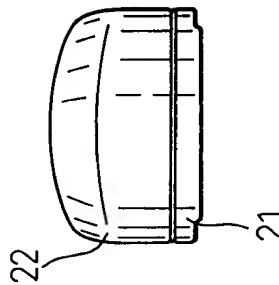


Figure 1 illustrates a perspective view of a mechanical assembly 81. The assembly features a central frame 91 supporting several cylindrical rollers or guides 82, 83, and 84. A complex linkage system connects these rollers, including arms 63, 64, 65, 85, 87, and 88, and various joints 66, 83, 85, 87, 88, 92, 93, and 94. Two circular plates 63 and 86 are shown with radial slots. Arrows indicate the movement of parts: roller 82 moves vertically along guide 84; rollers 83 and 84 move horizontally along guide 82; plate 63 rotates around joint 65; plate 86 rotates around joint 87; and roller 92 moves vertically within slot 93 of frame 91. A switch component SW3 is positioned near roller 84.

Fig. 12

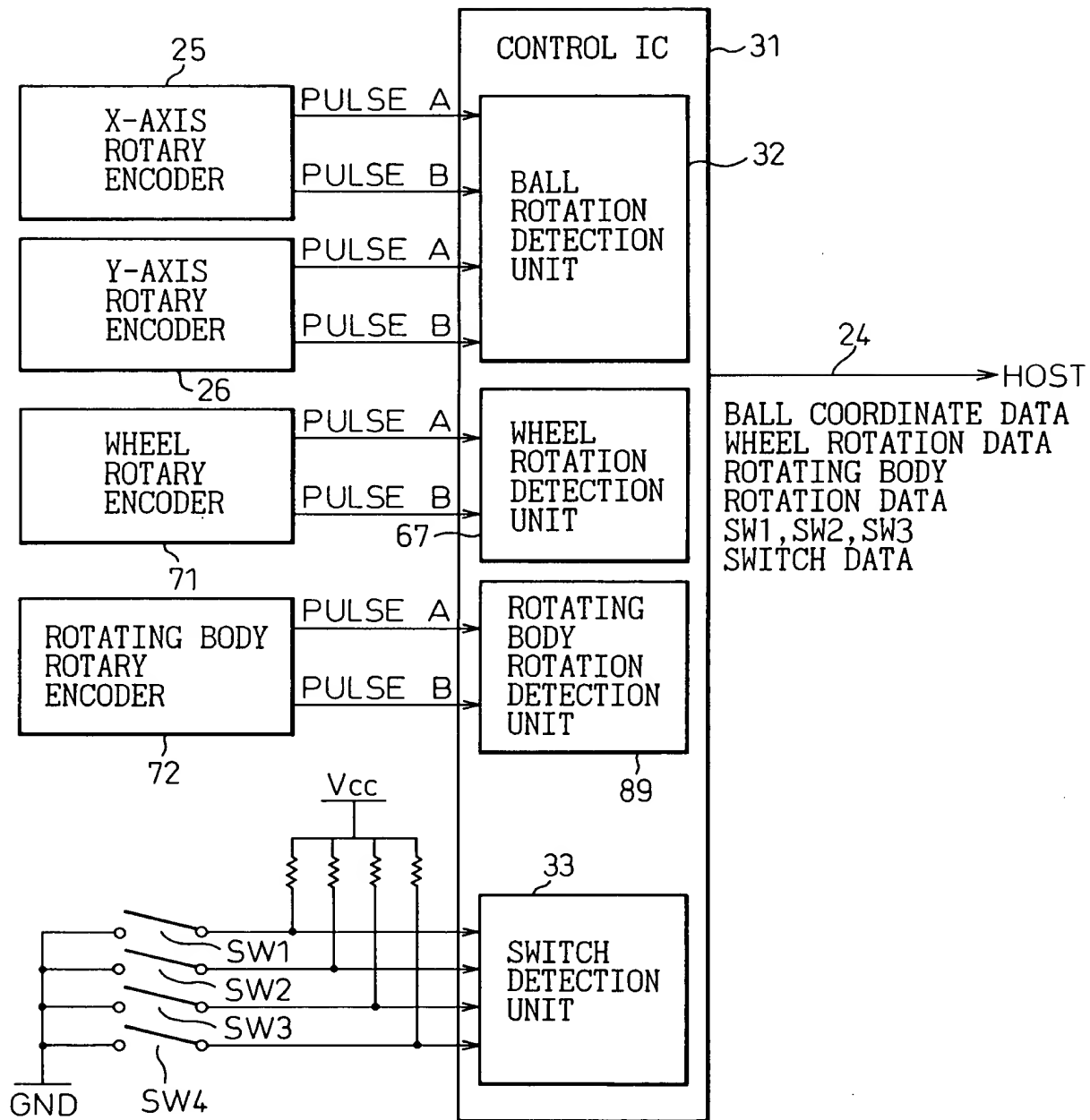
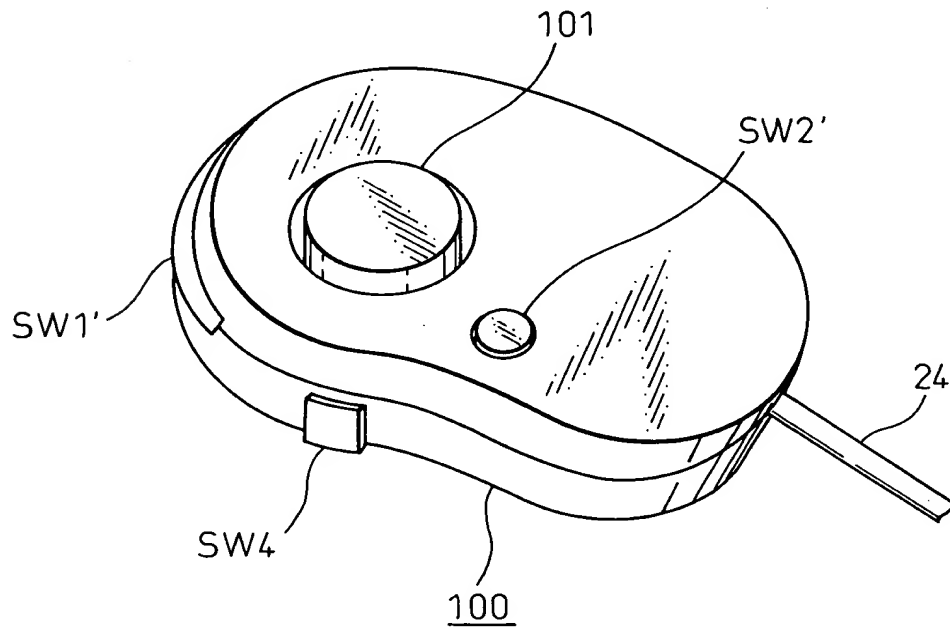




Fig. 14

	FIRST BYTE	SECOND BYTE	THIRD BYTE	FOURTH BYTE	FIFTH BYTE
SW4 OFF NORMAL OUTPUT DATA	SW1, SW2, SW3 SWITCH DATA	BALL X-DIRECTION ROTATION DATA	BALL Y-DIRECTION ROTATION ENCODER	ROTATING BODY ROTATION DATA	WHEEL ROTATION DATA
SW4 ON OUTPUT DATA WITH SW4 BEING DEPRESSED	SW1, SW2, SW3 SWITCH DATA	ROTATING BODY ROTATION DATA	WHEEL ROTATION DATA	0	0

Fig. 15



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Fig. 16

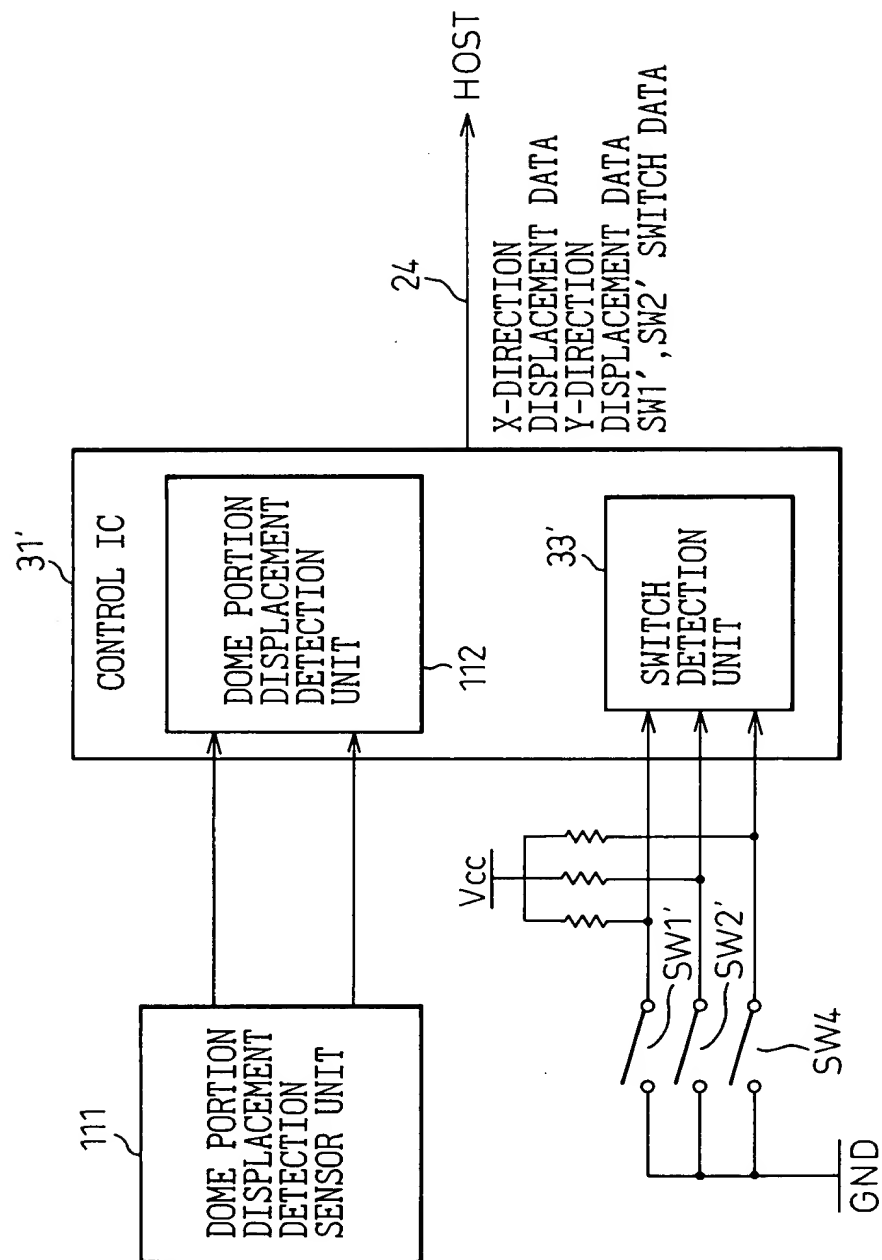


Fig.17

	FIRST BYTE	SECOND BYTE	THIRD BYTE	FOURTH BYTE	FIFTH BYTE
SW4 OFF NORMAL OUTPUT DATA	SW1', SW2' SWITCH DATA	X-DIRECTION DISPLACEMENT DATA	Y-DIRECTION DISPLACEMENT DATA		
SW4 ON OUTPUT DATA WITH SW4 BEING DEPRESSED	SW1', SW2' SWITCH DATA	0	0	X-DIRECTION DISPLACEMENT DATA	Y-DIRECTION DISPLACEMENT DATA